

Deliverable 7.4: Data Management Plan adhering to the H2020 Open Research Pilot

Database Management plan

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Contact persons	Seda Çakir (Project coordinator TNO) seda.cakirbenthem@tno.nl		
Website	www.performproject.eu		

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Deliverable responsible	Mathilde Vermeire	Contact person	Mariana Fernandez

Deliverable Contributors				
	Name	Organisation	Role / Title	E-mail
Deliverable leader	Mathilde Vermeire	Sustainable Innovations Europe	Project manager	mathildevermeire@sustainableinnovations.co
Reviewer(s)				
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1. EXECUTIVE SUMMARY

This Data Management Plan aims at illustrating all the data that will be generated and/or collected throughout the project lifetime from January 1st, 2019 to December 31th, 2022; how it will be stored and managed; what are the measures to ensure the data quality and security; who owns the data and how they can be re-used if possible.

This Database management Plan is part of the open access research data pilot scheme that is introduced by the European Commission to increase to impact of H2020 funding. The scheme makes all data generated throughout the project subject to open access by default. Nevertheless, selected datasets can be closed if necessary, by stating so in this Data Management Plan.

The PERFORM consortium is aware of and will make necessary efforts to follow the **FAIR** data management policy suggested by European Commission, meaning making data findable, accessible, interoperable, and reusable.

Disclaimer

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This is the one and only version that will be delivered from the data management plan. Nevertheless, the document will have to be updated in case of possible alterations in the consortium structure, e.g.: Replacement of a partner with new partner, uptake of new deliverables by existing partner, etc.

2. INTRODUCTION

This document describes the initial **Data Management Plan** (DMP), as Deliverable 7.4 on Month 6, customized for the PERFORM project, funded by the SPIRE program (Sustainable Process Industry through Resources and Energy) under the Grant Agreement (GA) No. 820723.

The purpose of this DMP is to ensure the data generated and collected in the PERFORM project will follow the **FAIR** data management policy, meaning making data findable, accessible, interoperable, and reusable. According to the guidelines provided by EU Horizon 2020 programmes (European Commission, 2018), following information will be included in this DMP:

- ▶ Methods to handle the research data during and after the end of project
- ▶ Descriptions of the datasets that will be collected, processed, and/or generated, such as data type, format, volume, source, etc.
- ▶ Methodologies and standards that will be adopted for the data management
- ▶ Level of accessibility/confidentiality of the data, and the opting out statement in case of no option for open access.
- ▶ Methods to curate and preserve the data during and after the end of the project
- ▶ Methods to enable third parties to access, mine, exploit, reproduce and disseminate the research data.

Nevertheless, some important remarks are to be noticed. The encouragement to conduct the DMP is to serve as a tool to assist the project having good data management practice. In addition, according to article 29.3 in the GA, the PERFORM project is applicable for open access to research data, meaning the research data collected and/or generated in the PERFORM project is by default submitted to open access unless stated otherwise. Open access of Research data dissemination shall however not hinder the ability of the partners to file for a patent. More details will be provided in the first version of exploitation plan as deliverable D7.3 due month 12.

3. DATA SUMMARY

3.1. Purpose of Data Generation and Collection

The purpose of data generation and collection in the PERFORM project is to achieve the objectives of the project: Development of highly efficient and integrated electrochemical systems which substantially improve oxidative chemical transformations based on bio-based feedstocks. This will be achieved through the establishment of a flexible power platform pilot plant to be used after the end of the project, allowing for continuous innovation and impact.

3.2. Data Generation and Collection

The majority of the datasets will be generated in work package (WP) 2 and 7. Descriptions of the datasets are categorized into both qualitative and quantitative aspects (as shown in **Error! Reference source not found.**). There are total 18 datasets being identified at current stage. This information has been collected via questionnaires distributed to each partner.

TABLE 1: DATASET INFORMATION TEMPLATE

Work Package	Which WP and deliverable are this dataset related to
Data set Name	The name of the dataset should be easily to search and find
Dataset Description	Brief description of the dataset
Responsible partners	The lead partners responsible for the dataset generation/collection
Purpose	The purpose of the data collection/generation and its relation to the objectives of the project
Type	Types of data could be report, paper, interview, expert or organization contact details, video, audio, presentation, or note
Format	Data formats could be XLSX, DOC, PDF, PPT, JPEG, OPJ, TIFF
Volume	The size of the dataset (units: GB/MB) and the number of files
Source	The origin of the data
IPR Owner	Which project participant(s) own the intellectual property right (IPR)
Re-use existing Data	Identification if any existing data being reused and how they are used
Beneficiary	To whom the data may be useful
DOI (if known)	
Keywords	The keywords associated with the dataset to make it easier to search and find
Version number	To keep track of changes to the dataset

TABLE 2: DATASETS INFORMATION FOR WP 1

Work Package	WP 1 , Deliverable 1.1 and 1.2
Dataset Name	Composition and pre-treatment sugar feedstock
Dataset Description	D1.1 will contain the composition of the feedstock. D1.2 is a protocol for the sugar pre-treatment.
Responsible partners	Avantium
Purpose	Prepare suitable feedstock for the PowerPlatform from industrial feedstock.

Type	Composition of the sugar stream. Results from various analytical chemistry techniques.
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: 1 GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: 100
Source	Experimental results from various chemical analysis methods (LC, IC, IR, ICP-AES, elemental analysis).
IPR Owner	Avantium
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? Relevant to other internal projects
Beneficiary	Avantium, TNO, HYS, INSTM, VITO
Keywords	Sugar feedstock composition; sugar feedstock pre-treatment
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 3: DATASETS INFORMATION FOR WP 2

Work Package	WP 2 , Electrode Platform, Deliverable D.2.1-D2.5
Dataset Name	Electrode Platform
Dataset Description	Development of the catalytic electrodes for the oxidation (anode) and reduction (cathode) parts of the paired electrocatalytic reactor
Responsible partners	INSTM
Purpose	Develop the catalytic electrodes
Type	Confidential data regarding preparation of the catalytic electrodes direct and electrode heating system
Format	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> no single type of data
Volume	Expected Size: cannot be defined GB <input type="checkbox"/> MB <input type="checkbox"/> Number of files: cannot be defined
Source	experiments
IPR Owner	developing beneficiaries
Re-use existing Data	Will you re-use any existing data? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	to beneficiaries of all the project
Keywords	The keywords associated with the dataset. Click or tap here to enter text.
Version number	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Work Package	WP 2 , Deliverable 2.1
Dataset Name	Report on competitive technologies
Dataset Description	D2.1 is a report in which conventional competitive technologies are discussed.
Responsible partners	D2.1: Avantium
Purpose	1. Comparison of competitive technologies to identify our technology position. 2. Development of electrocatalysts for the PowerPlatform
Type	Composition of the sugar stream. Results from various analytical chemistry techniques.
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.

Volume	Expected Size: 1 GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: t.b.d.
Source	Written report based on literature.
IPR Owner	t.b.d.
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? Continuation of previously performed research
Beneficiary	PERFORM Consortium
Keywords	Biomass conversion, electrosynthesis
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 2 , Deliverable 2.2 - 2.4
Dataset Name	Results from electrode testing
Dataset Description	D2.2 – D2.4 are the experimental results from electrode testing
Responsible partners	D2.2 – D 2.4: VITO and INSTM
Purpose	1. Comparison of competitive technologies to identify our technology position. 2. Development of electrocatalysts for the PowerPlatform
Type	Composition of the sugar stream. Results from various analytical chemistry techniques.
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: 1 GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: t.b.d.
Source	Written reports from experimental research
IPR Owner	t.b.d.
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? Continuation of previously performed research
Beneficiary	PERFORM Consortium
Keywords	Biomass conversion, electrosynthesis
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 2 , Deliverable D2.2
Dataset Name	Report on performance of lab-scale anodes
Dataset Description	Completed preparation and ranking of lab-scale anodes, at least 6 samples, for line 1 and 2. List of most suitable mediators for line 2. Identification of reaction conditions and stability for pilot unit
Responsible partners	VITO, TNO, INSTM, AVT
Purpose	What is the purpose of the data collection/generation and its relation to the objectives of the project?
Type	Electrochemical performance data, analytical data, physicochemical data
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input checked="" type="checkbox"/> EC lab data
Volume	Expected Size: Click or tap here to enter text. GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: >200
Source	Experimentally in an electrochemical cells
IPR Owner	data generator
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? For planning experiments

Beneficiary	Entire consortium, end-users, readers of the scientific papers
Keywords	LSV, CV, EIS, chronoamperometry, HPLC, SEM, XRD, EDX, GC data, pH
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 2 , Deliverable D2.5
Dataset Name	Heated electrode scaleup
Dataset Description	Technical Report about the development of a modular ThermaLab System. Scaled-up concept for direct heated electrodes. Modular heating platform to address electrode materials of up to 50 OHM
Responsible partners	Gensoric
Purpose	A ThermaLab™ platform will be designed, which is capable to address different electrode materials, sizes and designs. It is necessary in context of this proposal, that different electrode-resistances (because of material, size and shape) can be used for heating via direct-heating method.
Type	Technical reports, System diagrams, Measurement data
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input checked="" type="checkbox"/> DOCX
Volume	Expected Size: 10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: 5
Source	In house measurements, in house development documentation
IPR Owner	Gensoric
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> If yes, how will you use? General system diagrams / Plans of the ThermaLab system
Beneficiary	GENS, VITO, HST, AVT
Keywords	ThermaLab, modular, direct heated electrode, electrode resistance, frequency,
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 4 DATASETS INFORMATION FOR WP4

Work Package	WP 4, Deliverable D4.1 and D4.2
Dataset Name	Design of the PowerPlatform
Dataset Description	The dataset regards with development and design of the PowerPlatform. Within Task 4.1, the scale-up of the electrochemical reactors and downstream process for line 1 and 2, will take place. PFD and P&ID of the project will be designed. This information and that collected from WP1 and WP3 will be used as an input of the hazard and operability study (HAZOP). Reports with the design and engineering documentation (PFD, P&ID and HAZOP analysis) of the overall final plan will be provided.
Responsible partners	HST, VITO, TNO, AVT
Purpose	This is the based for the development and manufacturing of the final plan.
Type	The design will generate process diagrams, mass and energy balances, safety analysis.
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: some gigabits GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: Click or tap here to enter text.
Source	The dataset will be generated within the project since it refers to the final plant development. The data for the development and design of the complete PowerPlatform will require the synergistic integration of the electrochemistry and process purification skills. The data developed in WP2 and WP3 (results of experimental tests performed in a small scale) is the base for this dataset generation.

IPR Owner	Maybe, IPs will be generated and protected and eventual exploitation could take place. However, it needs to be decided at later stage in line with PERFORM consortium agreement
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? We might use some data generated/collected from previous EU projects
Beneficiary	The generation of the new dataset could be helpful for the scientific community (chemical engineering, researchers working in electrochemistry..), because it will expand knowledge for the design of electro-catalytic reactor (i.e. for chemical building blocks production) up to industrial level using biomass feedstocks for chemical production.
Keywords	Powerplatform design, PFD, P&ID, HAZOP
Version number	Will you provide clear version number to keep track of changes to the dataset? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 4, Deliverable D4.3
Dataset Name	Manufacturing and assembly of the PowerPlatform
Dataset Description	The dataset involves the manufacturing, assembly and pre-certification of the PowerPlatform. A report with pictures and results from the mechanical tests and certification performed at HST will be provided
Responsible partners	HST
Purpose	These activities are dedicated to the building and commissioning of the final PERFORM prototype.
Type	The construction and testing will generate preliminary measurements at a TRL6 level.
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input checked="" type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: some gigabits GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: Click or tap here to enter text.
Source	The dataset will be generated within the project since it refers to the final plant manufacturing. The previous dataset will be the base for the manufacturing of the final prototype.
IPR Owner	Maybe, IPs will be generated and protected, and eventual exploitation could take place. However, it needs to be decided at later stage in line with PERFORM consortium agreement
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? We might use some data generated/collected from previous EU projects
Beneficiary	The generation of the new dataset could be helpful for the scientific community (chemical engineering, researchers working in electrochemistry..), because it will expand knowledge for the design of electro-catalytic reactor (i.e. for chemical building blocks production) up to industrial level using biomass feedstocks for chemical production.
Keywords	
Version number	Will you provide clear version number to keep track of changes to the dataset? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 5:DATASETS INFORMATION FOR WP 5

Work Package	WP 5 , Deliverable Quality of products assessment
Dataset Name	Valeric acid test data

Dataset Description	Evaluation of the performance of the valeric acid produced in relation to valeric acid produced by industrial standard methods.
Responsible partners	RCH
Purpose	Evaluate if the raw materials and production setup is suitable for production of industrial bulk material meeting the product requirements
Type	Analysis data, performance data and product evaluation data
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: 0-10 GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: 10-300
Source	Data generated during testing and reports based on obtained data
IPR Owner	Perstorp AB
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? For comparison with the data obtained for during this project
Beneficiary	Anyone evaluating this technology
Keywords	Valeric acid, evaluation, analysis
Version number	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Work Package	WP 5 , Deliverable D5.8- Product formulations
Dataset Name	Biopolymers
Dataset Description	DATA GENERATED: Novamont will report the results from the tests of validation of building blocks from power platform electrochemical technology. In particular results will include characterization in terms of mechanical and thermal properties of the obtained bioproducts. DATA REQUESTED: For the purpose Novamont will need data from other partners (TNO, Radici, INSTM, VITO) regarding the characterization of the building blocks obtained through this new technology (chemical and physical analysis)
Responsible partners	Novamont will require data to technical partners on the physical and chemical characterization of the building blocks
Purpose	This data is essential to tailor the polymerization process by Novamont
Type	What types of data will the project generate/collect? Click or tap here to enter text.
Format	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: Click or tap here to enter text. GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: Click or tap here to enter text.
Source	Data are expected to be generated by technology providers (TNO, Radici, INSTM, VITO) following the experimental trials foreseen in WP3, WP3 and WP4
IPR Owner	Click or tap here to enter text.
Re-use existing Data	Will you re-use any existing data? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, how will you use? Click or tap here to enter text.
Beneficiary	The data will be requested by Novamont to the partners. It will be used to Novamont to set-up the polymerization process and to provide back feedback to technology providers about the quality of the obtained building blocks
Keywords	Building blocks characterization for validation into biopolymers
Version number	Will you provide clear version number to keep track of changes to the dataset? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

TABLE 6: DATASETS INFORMATION FOR WP 6

Work Package	WP6. 2 , Deliverable Techno-Economic Assessment
Dataset Name	Word file – Description of techno economic analysis
Dataset Description	Description of techno economic analysis
Responsible partners	TNO, HST
Purpose	Making a techno-economic assessment
Type	To be defined in detail in collaboration with partners, basically CAPEX, OPEX, technical data
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: 1.35 GB <input checked="" type="checkbox"/> MB <input type="checkbox"/> Number of files: 1
Source	Generated by partners
IPR Owner	Partners
Re-use existing Data	Will you re-use any existing data? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	Project partners, all market participants
Keywords	Techno-economic assessment
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 7: DATASETS INFORMATION FOR WP 7

Work Package	WP 7 , Deliverable D 7.2
Dataset Name	Dissemination and communication plan
Dataset Description	The plan will contain data related to dissemination and communication issues
Responsible partners	SIE
Purpose	To manage the issues related to dissemination and communication
Type	Dissemination material
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
Volume	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: at least 10
Source	Partners contribution
IPR Owner	
Re-use existing Data	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	All audience
Keywords	Publications, dissemination, communication
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Deposit location	Through the PERFORM website
Work Package	WP 7 , Deliverable D7.1
Dataset Name	Website
Dataset Description	Content of the website
Responsible partners	SIE

Purpose	To disseminate the PERFORM project
Type	Dissemination material
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
Volume	Expected Size: GB <input type="checkbox"/> MB <input checked="" type="checkbox"/>
Source	Partners contribution
IPR Owner	
Re-use existing Data	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	All audience
Keywords	Website, dissemination
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 7 , Deliverable 7.4
Dataset Name	WP7_D7.4_Database Management Plan Questionnaires From the Consortium
Dataset Description	This dataset includes all the questionnaires answered by each partner in the consortium about the datasets that will be generated within the project lifetime and how they will be managed during and after the end of project
Responsible partners	All partners are responsible to fill out the questionnaire that is designed, distributed, and collected by SIE
Purpose	To conduct the Database management plan tailor-made for PERFORM project
Type	Questionnaires
Format	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
Volume	Expected Size: >10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: Approx. 20
Source	Project partners
IPR Owner	Partners who fill out the questionnaire
Re-use existing Data	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	Whole consortium and related stakeholders
Keywords	Data management plan, FAIR, findability, accessibility, interoperability, reusability, data security
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 7 , Deliverable 7.3
Dataset Name	WP7_D7.3_Exploitation plan questionnaires from the consortium
Dataset Description	This dataset includes all the questionnaires answered by each partner in the consortium for the information about the KERs, IPR strategy and protection, market analysis, and exploitation
Responsible partners	All partners are responsible to fill out the questionnaire that is designed, distributed, and collected by SIE
Purpose	To conduct the Exploitation plan tailor-made for PERFORM project
Type	Questionnaires
Format	XLSX <input type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
Volume	Expected Size: >10 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: Approx. 20
Source	Project partners
IPR Owner	Partners who fill out the questionnaire
Re-use existing Data	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	Partners involved for each commercial KERs
Keywords	Exploitable results, exploitation route, intellectual property
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Work Package	WP 7 , Deliverable D7.5
Dataset Name	PERFORM Newsletters and Articles

Dataset Description	Articles in technical journals and Newsletters online
Responsible partners	SIE
Purpose	To increase the visibility of the project and disseminate outstanding results related to the project
Type	Technical paper.
Format	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/>
Volume	Expected Size: 5 GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: 2
Source	Experimental work and reporting
IPR Owner	
Re-use existing Data	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Beneficiary	General public, and all consortium partners
Keywords	Dissemination, PERFROM
Version number	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Work Package	WP 7, Deliverable 7.9
Dataset Name	Report on planning for use of the PowerPlatform
Dataset Description	Arrangements and planning for use of the PowerPlatform unit after the project ends.
Responsible partners	TNO
Purpose	Making a plan about the usage of the PowerPlatform
Type	What types of data will the project generate/collet? Click or tap here to enter text.
Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: n.a. GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: n.a.
Source	Communication between the consortium and Industrial Interest Group members
IPR Owner	Click or tap here to enter text.
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? Click or tap here to enter text.
Beneficiary	Consortium members, industrial interest group and other stake holders
Keywords	Plan, pilot, business analysis
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

TABLE 8: DATASETS INFORMATION FOR WP 8

Work Package	WP 7, Deliverable 8.5
Dataset Name	Survey report on Industrial Interest Group (IIG) Feedback
Dataset Description	IIG feedback survey on the project results and use of the PowerPlatform after the project
Responsible partners	TNO
Purpose	Getting feedback from the IIG and implementing this on how to use the PowerPlatform
Type	Survey data

Format	XLSX <input checked="" type="checkbox"/> DOC <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> PPT <input checked="" type="checkbox"/> JPEG <input checked="" type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: n.a. GB <input type="checkbox"/> MB <input checked="" type="checkbox"/> Number of files: n.a.
Source	Communication between the consortium and the IIG members
IPR Owner	TNO
Re-use existing Data	Will you re-use any existing data? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? Click or tap here to enter text.
Beneficiary	Consortium members, industrial interest group and other stake holders
Keywords	Survey, industry, pilot
Version number	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

4. FAIR DATA

The PERFORM project will dedicate to make the datasets collected or generated in the project comply to European Commission's FAIR data policy – "Findable, Accessible, Interoperable, Reusable".

4.1. Findability

For published articles, a Digital Object Identifier (DOI) as a unique and permanent code to identify will be assigned by the corresponding journal. In other case, the identification mechanism will depend on the repository that the PERFORM project adopts if any.

Naming conventions:

PERFORM_<DX.Y/WPX/TX.Y>_<Title>_<Version>_<Date>.filetype

Where:

- <DX.Y> Deliverable number, e.g. "D2.3" for Deliverable 2.3.
- <WPX> Work Package identifier, e.g. for example "WP1" or "WP2".
- <TX.Y> Task number, e.g. "T3.1" for Task 3.1.
- <Title> Short description of document.
- <Version> Version identifier, e.g. 'v1'.
- <Date> Date in "yyyymmdd" format.

Example:

PERFORM_D7.4_Data Management Plan_v1_20190601.docx.

Search keywords of each dataset are provided by the project participants who generate the datasets to optimize the possibilities for reuse and are noted in the dataset information table as shown in section 2.2 above.

4.2. Accessibility

According to Article 29.1 in the GA, each beneficiary must disseminate the project results as soon as possible by disclosing them to the public through appropriate means, unless the legitimate interests would be infringed. Currently, the PERFORM project is using Microsoft's SharePoint as an intranet/repository to deposit project related data and documentation. Key features include easiness to manage/share/collaborate the file anywhere, wide-range of preview function for more than 270 common file types, support for team communication and engagement, and automation of repetitive tasks (Microsoft, 2018).

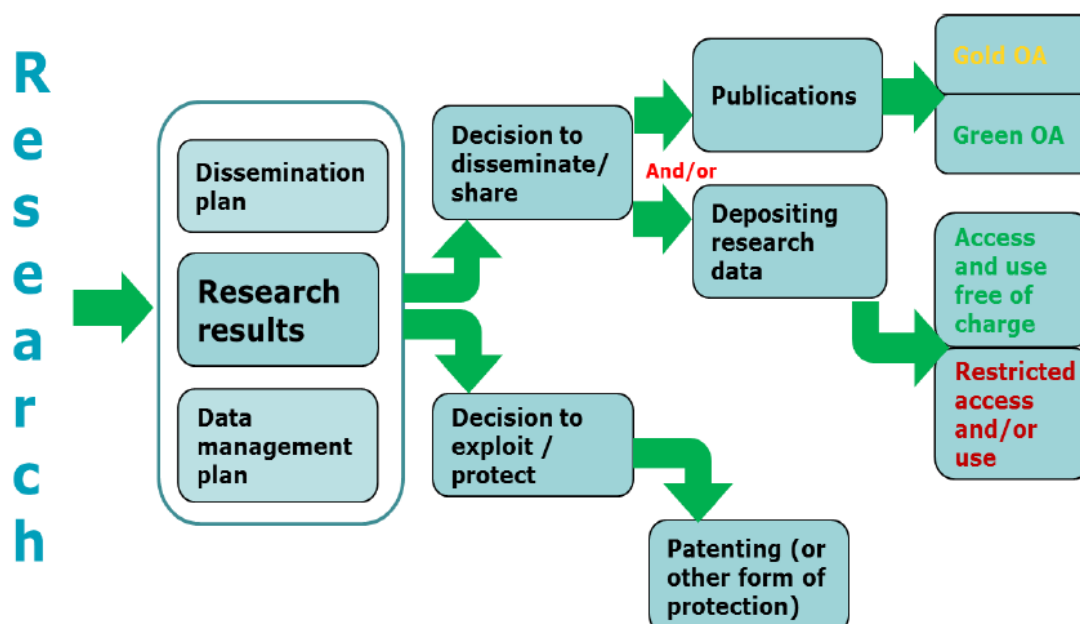


FIGURE 1 OPEN ACCESS OF PUBLICATIONS AND RESEARCH DATA

(Spichtinger, 2016)

For scientific publications, each partner must take measures to ensure open access, meaning providing online access for any user without additional charge, to all peer-reviewed scientific publication relating to its results in accordance with the Article 29.2 in the GA. Two main publishing approaches to consider are Green and Gold open access (Newcastle University, 2018)(Springer, 2018).

- ▶ **Green open access:** Also referred as self-archiving. Authors deposit the manuscripts into their institutional repository or a subject repository with immediate or delayed open access, making the publications freely accessible for all users. The deposited version of the publication (usually will be the final version for publication), terms and condition (e.g. embargo period) for the open access depend on the funder or publisher.
- ▶ **Gold open access:** Final version of the manuscripts are freely accessible for all users via publisher website permanently right after the publication without any embargo period. Authors owns the copyright without most of the permission restrictions compared to green open access.

Research data of PERFORM project, as mentioned in previous section, is bound to be submitted to open access. As one of the results of the PERFORM project, research data will be owned by the project participants who generate it, according to article 26 in the GA. The project coordinator together with the responsible partners will determine how the data collected and/or generated in the project will be made openly available. When the data is ready for publication a decision will be made to select the channels to deposit the data (e.g. repository, website, scientific journals, openAIRE), methods or software required to access the data if any, restriction on use if any, embargo period if any, the procedures to provide access, etc. Certain datasets may not be shared or would be share under restrictions considering ethical, confidentiality (in Article 36), security-related (in Article 37), privacy-

related (in Article 39), IPR and commercial/industrial exploitation potential (in Article 27). In this case, reasons for data accessibility constraints will be explained.

Below is the list of the datasets that have been identified as confidential in order to protect the IP of the results and ensure the success of the exploitation after the end of the projects.

TABLE 9: CONFIDENTIAL DATASETS

WP	Dataset Name	Accessibility within the consortium
WP1	Composition and pre-treatment sugar feedstock	Confidential, only for members of the consortium (including the Commission Services)
WP2	Heated electrode scaleup	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP2	Report on competitive technologies	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP2	Results from electrode testing	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP2	Report on performance data of lab-scale anodes	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP 2	Electrode platform	Cannot be shared. Access to the consortium through presentations at periodical meetings and reports
WP 4	Design of the PowerPlatform	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP 4	Manufacturing and assembly of the powerplatform	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP5	Valeric acid test data	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP 5	Biopolymers	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
WP7	Report on planning for use of the PowerPlatform	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage

WP8	Survey report on industrial interest group feedback	Confidential, only for members of the consortium (including the Commission Services). Uploaded to the shared online storage
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Important remark for any partner intending to disseminate its results, it is obligatory to provide notice with sufficient information on the dissemination contents to other partners at least **45** days in advance to the dissemination. Other partners, if not agree, may object within **30** days after receiving the notification and should provide proper justification to explain the reason why its legitimate interests would be significantly infringed. In this case, appropriate steps to solve the conflicts should take place; otherwise, the dissemination would not be able to further proceed.

4.3. Interoperability

The PERFORM project aims to collect and document the data in a standardized way to ensure the datasets would be easy to understand, reuse and interoperate among different parties who are interested in utilizing them. Standard technical terminology will also be used to facilitate interdisciplinary interoperability.

4.4. Reusability

Data reusability means the easiness to re-use the data for further researches or other purposes. In PERFORM project, the datasets have high reusability that normally no special methods or software is required to re-use the data. An initial timeline of re-usability is represented below:

TABLE 10: RE-USABILITY OF DATASETS

Dataset Name	Permit for re-use	Timeline
Report on performance data of lab-scale anodes	Accessible together with scientific communications arising from the data	When patent filed and scientific communication is made
Word file – Description of techno economic analysis	Public re-use	After the end of the project
Heated electrode scaleup	Confidential, only for members of the consortium (including the commission services)	After proper IP protection is in place
Composition and pre-treatment sugar feedstock	Confidential	Internal use until patents submitted
Report on competitive technologies	Confidential	Data shared amongst consortium partners. Regarded as confidential for indefinite period. If IP filing is not feasible data will be published in scientific journals
Results from electrode testing	Confidential	Data shared amongst consortium partners. Regarded as confidential for indefinite period. If IP filing is not feasible data will be published in scientific journals

Report on planning for use of the PowerPlatform	Open access	After the project ends for 10 years
Survey report on industrial interest group feedback	Open access	After the project ends for 10 years

The procedures to ensure the highest data quality and validity include internal reviews as well as peer reviews if the articles or documents would be published through scientific journals. Other specific procedures adopted by partners are listed below:

TABLE 11: SPECIFIC QUALITY CONTROL PROCEDURES ADOPTED BY PARTNERS

Partner Name	Standards
VITO	ISO9001/ISO45001/SO14001
AVA Biochem	Regular backups of the data
Gensoric	ISO9001:2015
PERSTORP	Specific company guidelines

Additionally, quality control of data at different stages from data collection, data entry or digitalization, and data checking is crucial in the PERFORM project in that many research experiments would be conducted throughout the lifetime of the project. Following measures referred to the Good Practice Note of Research Data Management (CGIAR, 2017) are offered as references for the consortium partners to follow in order to ensure data quality.

- ▶ Stage 1: Data collection
 - Calibrate the instruments to ensure the measurement accuracy
 - Take multiple measurements, observations, or samples to ensure the data reliability
 - Double confirm the truth of the record with adequate experts in the relevant domains
 - Unify standardized methods and standard operating procedures
- ▶ Stage 2: Data entry or Digitalization:
 - Set out validation rules in data entry software
 - Use controlled vocabularies, anthologies, code lists and choice lists to minimize the occurrence probability of human mistakes
 - Follow the naming conventions for the variables including names, dates, versions to avoid confusion
- ▶ Stage 3: Data checking
 - Double check the coding accuracy and out-of-range values
 - Check data completeness, appropriate naming conventions used
 - Choose random samples to verify the consistency with original data
 - Conduct statistical analysis to detect if any errors or abnormal values exist

5. DATA SECURITY

Currently, the PERFORM project uses Microsoft’s SharePoint as the intranet/repository to manage, share, and collaborate for the data and documents related to the project. Three levels of configurations to balance between the security protection and the ease of collaboration are recommended based on the confidentiality level of the data and documents from baseline, sensitive, to highly confidential (as shown in **Error! Reference source not found.**) (Microsoft, 2018).

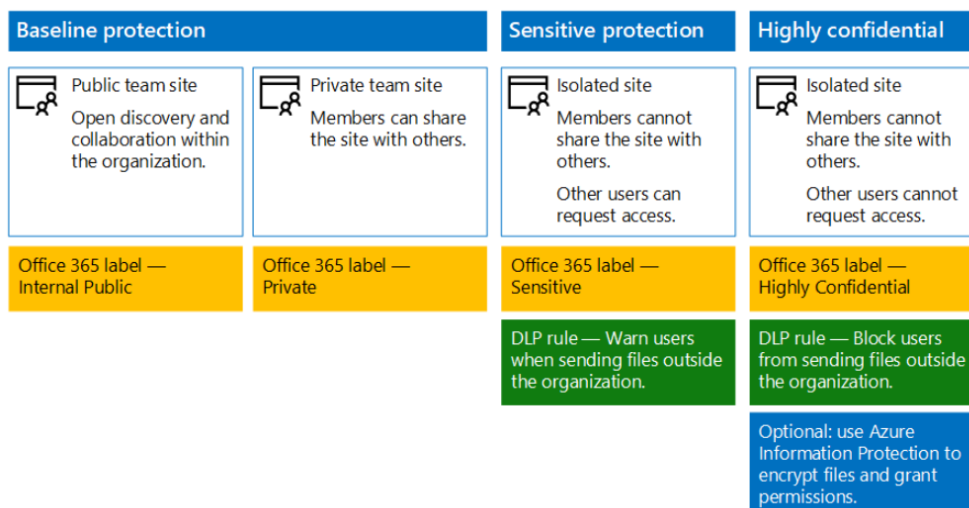


FIGURE 2: RECOMMENDED CONFIGURATIONS FOR SHAREPOINT

Meanwhile, most of the consortium partners have their own provisions in place for data security within organizations (as listed in the **Error! Reference source not found.** below).

TABLE 12: DATA SECURITY PROVISIONS WITHIN PARTNER'S ORGANIZATIONS

Partner Name	Data Security Provisions
Avantium	▶ Back-ups at external servers
VITO	▶ Dedicated IP departments
INSTM	▶ Internal rules set in place
AVA Biochem	▶ Restricted access to project folder and project files, Firewall.
Gensoric	▶ All data is stored locally on our server in our office, which is protected by up-to-date security software / Firewall etc. ▶ All data is backed locally in several timeframes to ensure version security. Furthermore, all data is backed to an offsite backup server on a regular bases.
PERSTORP	▶ Standard corporate guidelines
SIE	▶ Using internal company server ▶ Documents are automatically saved on the OneDrive. Historical copies could be access on the server

Hysytech	▶ Internal, regular backups and online consortium platform
TNO	▶ IT department of TNO has research information support to archive all TNO data

6. ETHICAL ASPECTS

The PERFORM project partners are to comply with article 34 concerning ethics and research integrity principles in the GA.

- ▶ Ethical principles (including the highest standards of research integrity)
- ▶ Applicable international, EU, and national law

In the PERFORM project, no ethical or legal issues that can have an impact on data sharing have been identified at current stage.

Important remark to be noticed that the EU GDPR regulation has been officially enforced on 25 May 2018, aiming to protect and empower all EU citizens personal data privacy as well as reshape the way organizations across the region manage data and proceed towards data privacy.

The GDPR is organized around seven key principles (European Commission, 2016):

- Lawfulness, fairness and transparency
- Purpose limitation
- Data minimization
- Accuracy
- Storage limitation
- Integrity and confidentiality (security)
- Accountability

Personal data is information that relates to an identified or identifiable individual (name, number, location, IP address...). Information which has had identifiers removed or replaced in order to pseudonymize the data is still personal data for the purposes of GDPR.

Hence, if any dataset that will be collected and/or generated in the PERFORM project may involve data privacy issue, responsible partner should take notice of the following key changes in GDPR (GDPR.ORG, 2018)(European Commission, 2018) and ensure to be compliant with the regulations. Noteworthy, only the relevant changes have been listed below. The consortium shall comply with but not limit to those GDPR regulations if applicable.

- ▶ **Conditions for consent:** The request for consent must be provided in an intelligible and easily accessible form, along with the explanation of the purpose for data processing attached to that consent. The language used is required to be clear and plain instead of illegible terms or conditions full of legalese.
- ▶ **Increased territorial scope:** GRDP is applicable if at least one of the following conditions is met.
 - The personal data processing concerns data subjects in the EU

- Personal data controller or processor is located in the EU, regardless of the exact location of processing taking place
- ▶ **Data subject rights:**
 - Breach notification: In case of any data breach that may “result in a risk for the rights and freedoms of individual”, the breach notification must be provided within 72 hours after becoming aware of a data breach.
 - Right to access: Data subjects are empowered to request confirmation with the data controller that if personal data concerning them is being processed, where and for what purpose and shall receive an electronic copy of personal data without additional cost.
 - Right to be forgotten: Data subjects have the right to demand the data controller to erase their personal data, cease further dissemination, and halt third-parties processing it upon condition that the data is no longer applicable for the original purpose for processing or the data subjects withdraw their consents.
- ▶ **Privacy by design:** Data controller shall include data protection into consideration from the very beginning of designing of systems. Appropriate measures shall be taken to protect the rights of data subjects, for instance only data which is considered necessary for completion of the tasks should be held and processed and only relevant personnel would be granted the access rights for data processing.

Recommendations on the right to be informed:

- ▶ Inform individuals about the collection and use of their personal data.
- ▶ Provide individuals with information including: The purposes for processing their personal data, the retention periods for that personal data, and who it will be shared with. It is called the ‘privacy information’.
- ▶ Provide privacy information to individuals at the time their personal data are collected from them.
- ▶ When you obtain personal data from a source other than the individual, you need to provide the individual with privacy information in less than a month. If you use data to communicate with the individual, you should provide privacy information at the latest when the first communication takes place
- ▶ When you collect personal data from the individual it relates to, you must provide them with privacy information at the time you obtain their data. you must tell people who you are giving their information to and give them an easy solution to opt out.
- ▶ The information you provide to people must be concise, transparent, intelligible, easily accessible, and it must use clear and plain language.
- ▶ It is often most effective to provide privacy information to people using a combination of different techniques including layering, dashboards, and just-in-time notices.
- ▶ User testing is a good way to get feedback on how effective the delivery of your privacy information is.
- ▶ You must regularly review, and where necessary, update your privacy information. You must bring any new uses of an individual’s personal data to their attention before you start the processing.

The checklist (as shown in **Error! Reference source not found.**) suggests the information to provide when collecting personal data either from individuals directly or from other sources (ico., 2018).

TABLE 13: CHECKLIST OF INFORMATION TO PROVIDE WHEN COLLECTING PERSONAL DATA

What information do we need to provide?	
The name and contact details of your organization	
The name and contact details of your representative	
The contact details of your data protection officer	
The purposes of the processing	
The lawful basis for the processing	
The legitimate interests for the processing	
The categories of personal data obtained	
The recipients or categories of recipients of the personal data	
The details of transfers of the personal data to any third countries or international organizations	
The retention periods for the personal data	
The rights available to individuals in respect of the processing	
The right to withdraw consent	
The right to lodge a complaint with a supervisory authority	
The source of the personal data	
The details of whether individuals are under a statutory or contractual obligation to provide the personal data	
The details of the existence of automated decision-making, including profiling	

7. OTHER ISSUES

At current stage, most of the consortium partners including Avantium, VITO, INSTM, AVA Biochem, Gensoric, PERSTORP, TNO, Novamont and SIE have reported no obligation to comply with additional specific national, funder, sectorial, departmental, or institutional data management policies.

8. ALLOCATION OF RESOURCES

According to the guidelines provided by EU Commission (European Commission, 2018), costs related to open access to research data in Horizon 2020 programme are eligible for reimbursement during the project lifetime if the requirements in article 6 and article 6 D.3 as well as other articles relevant for the cost category chosen are met.

The planned budget dedicated to data management which is already foreseen in the GA as well as additional information provided by each partner have been gathered together in **Error! Reference source not found.** below. This information might evolve in the future of the project and necessary adjustments might be required.

TABLE 14: ALLOCATION OF RESOURCES

Partner Name	Descriptions
Avantium	▶ Budget for IP filing when patenting is possible
VITO	▶ Budget for open access publication
TNO	▶ Budget is planned

As for long-term preservation of the datasets, different internal policies of each partners are noted in **Error! Reference source not found.** based on the information provided by the consortium partners.

TABLE 15: DATA LONG-TERM PRESERVATION POLICIES

Partner Name	Planned Resources	Decision Maker for Data Preservation	Preservation Timeframe
Avantium	Yes	Avantium	Indefinite
AVA Biochem	Yes	Final report, H2020 requirements	5 Years
INSTM	No		
VITO	Yes	VITO	10 years by default
Gensoric	Yes	Project Manager	Indefinitely
PERSTORP	No		
SIE	No		
TNO	No	TNO	10 years
Hysytech	No		

9. EVOLUTION OF THE DATA MANAGEMENT PLAN THROUGHOUT THE PROJECT

This deliverable is the one and only Data management plan that will be officially submitted throughout the project's lifetime. It is however expected that there might be need for an update when the tasks from VERTECH are officially taken over by an existing partner or an incoming partner.

10. REFERENCES

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11. ANNEXE

The following contents have been designed and distributed in the form of questionnaire to collect data management information from the consortium partners.

► Section 1: Data Summary

Please fill in the answers for the potential dataset your organization might generate or collect during the project.

Notice: If you will have more than one dataset, please feel free to duplicate the table below till the numbers of dataset you need

Work Package	WP Choose an item. , Deliverable Click or tap here to enter text.
Dataset Name	Click or tap here to enter text.
Dataset Description	Please write a brief description of the dataset. Click or tap here to enter text.
Responsible partners	Who are the lead partners responsible for the dataset generation/collection? Click or tap here to enter text.
Purpose	What is the purpose of the data collection/generation and its relation to the objectives of the project? Click or tap here to enter text.
Type	What types of data will the project generate/collet? Click or tap here to enter text.
Format	XLSX <input type="checkbox"/> DOC <input type="checkbox"/> PDF <input type="checkbox"/> PPT <input type="checkbox"/> JPEG <input type="checkbox"/> OPJ <input type="checkbox"/> TIFF <input type="checkbox"/> Other <input type="checkbox"/> Click or tap here to enter text.
Volume	Expected Size: Click or tap here to enter text. GB <input type="checkbox"/> MB <input type="checkbox"/> Number of files: Click or tap here to enter text.
Source	What is the origin of the data? How the dataset is generated/collected? Click or tap here to enter text.
IPR Owner	Click or tap here to enter text.
Re-use existing Data	Will you re-use any existing data? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, how will you use? Click or tap here to enter text.
Beneficiary	To whom will the data be useful? Click or tap here to enter text.
Keywords	The keywords associated with the dataset. Click or tap here to enter text.
Version number	Will you provide clear version number to keep track of changes to the dataset? Yes <input type="checkbox"/> No <input type="checkbox"/>

► Section 2: FAIR Data

► 2.1 Making data findable, including provisions for metadata

1. Are the datasets your organization generated/collected discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. Digital Object Identifiers?)

Click or tap here to enter text.

2. Does your industry use any standards to identify for this type of datasets?

- a) If yes, which ones?

Click or tap here to enter text.

- b) If no, what metadata do you suggest? Please outline what type of metadata will be created and how.

Click or tap here to enter text.

3. What naming conventions do you follow?

Click or tap here to enter text.

▶ 2.2 Data accessibility and re-use

4. Which data produced and/or used in the project will be made openly available as the default?

Notice: If you will have more than one dataset, please feel free to duplicate the table below till the numbers of dataset you need. But if there are multiple datasets using same way to access and requiring same method/software, please simply write down the names of dataset in the same box.

Dataset(s)	Click or tap here to enter text.
How to access	How will the data be made accessible (e.g. by deposition in a repository)? Click or tap here to enter text.
Methods/Software needed	Is any specific methods or software needed in order to access this dataset? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, what are they? Click or tap here to enter text.
Permit for re-use	How will the data be licensed to permit the widest re-use possible? Click or tap here to enter text.
Time for re-use	When will the data be made available for re-sue? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply. Click or tap here to enter text.
	How long is it intended that the data re-usable? Click or tap here to enter text.

5. Is there any dataset that cannot be shared or needs to be shared under restrictions?



Notice: If you will have more than one dataset for this question, please feel free to duplicate the table below till the numbers of dataset you need

Dataset(s)	Click or tap here to enter text.
Status	Cannot be shared <input type="checkbox"/> Sharable under certain restrictions <input type="checkbox"/>
Why	(Please separate legal and contractual reasons from voluntary restrictions) Click or tap here to enter text.
Access	Access for the consortium What's the accessibility within the consortium? Click or tap here to enter text.

6. Do you use any specific process to ensure the data quality?

Click or tap here to enter text.

▶ 2.3 Data interoperability

7. Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc.?

Click or tap here to enter text.

8. Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?

Click or tap here to enter text.

9. Will you provide mappings to more commonly used ontologies if you use uncommon or generate project specific ontologies or vocabularies?

Click or tap here to enter text.

▶ Section 3: Allocation of Resources

10. Did you plan a budget for data accessibility (such as publication fees in open access journals) in the project budget?

Remind: Costs related to open access to research data are eligible as part of the H2020 grant if compliant with the GA conditions.

Click or tap here to enter text.

11. Long-term preservation of the data:

- a) Did you plan resources for long term preservation of the data, even after the end of the project?

Yes No

- b) Who decides what data to keep?

Click or tap here to enter text.

- c) For how long?



Click or tap here to enter text.

▶ **Section 4: Data Security**

12. What provisions are in place for data security within your organisation?

Click or tap here to enter text.

▶ **Section 5: Ethical Aspects**

13. Are there any ethical or legal issues that can have an impact on data sharing?

Click or tap here to enter text.

14. Is informed consent for data sharing and long-term preservation included in questionnaires dealing with personal data (if applicable)?

Yes No

15. Do you make use of other national/funder/sectorial/departmental procedures for data management?

Yes No

If yes, which ones?

Click or tap here to enter text.

▶ **Others**

16. Do you have any query or recommendation for PERFORM's Data Management Plan?

Click or tap here to enter text.

CONTACT DETAILS

Mariana Fernandez

Marianafernandez@sustainableinnovations.co

Sustainable Innovations

<https://performproject.eu/>